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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/575,060	05/19/2000	Babu J. Mavunkel	21900-20290.00	1599

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EXAMINER

CHANG, CELIA C

ART UNIT	PAPER NUMBER
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1625

DATE MAILED: 08/22/2003

23

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/575,060	MAVUNKEL ET AL.
	Examiner	Art Unit
	Celia Chang	1625

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 06/09/03.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-6, 9, 11, 12, 16-37, 39 and 45-84 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-6, 9, 11-12, 16-27, 22-37, 39, and 45-84 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on _____ is: a) approved b) disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 - a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

1. Applicants have filed an appeal brief. In an appeal conference, it was decided that the finality of the previous office action should be withdrawn and the following new grounds of rejections should be made in view of the newly acquired information. The brief is treated as a response to the withdrawn final rejections which are now moot. Claims 1-6, 9, 11-12, 16-27, 22-37, 39, and 45-84 are pending.
2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The claim is very confusing.

In the twice amended claim 1, on p.2, the term Y is COR2 or "isostere thereof" is confusing as to what the claimed scope is. It is defined on page 11 of the specification that R2 can be H or many variables. Please note that an isostere when Y is COOH is completely different from when Y is CO-NRSO2R for example. Further, it was defined on page 11-12 that Y is an "acid isostere" of table 1. therefore, it is very confusing as to "what" is the scope of the claim.

Claims 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The scope of the claims can not be ascertained because the terms in the claims as "noninterfering substituents", "each of W and X is a spacer of 2-6 Å", "Ar is an aryl group substituted with 0-5 noninterfering substituents wherein two noninterfering substituents can form a fused ring" "the distance between the atom of Ar linked to L2 and the center α -ring is 4.5-24 Å"

It is very confusing as to "what" is the scope of the claims. Are they material with the center core and tether of size as limited by the claims? Or are they chemical compounds with structural variation of the core? Or both size and structure must be present. It is noted that the limitation "the distance between the atom of Ar linked to L2 and the center α -ring is 4.5-24 Å" can not be met by the structure because it is evidenced by the CRC handbook that one heteroatom six membered ring size would approximately be 111.8 (see p. 9-41). Therefore, it is

impossible to meet this double constrain of the claims. Since it is evidenced that the double constrain of the claims were not able to be met, claim 1 is alternatively rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claims contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention since evidence in size revealed that meeting both the structural limitation and the size limitation can not be obtained. In absence of specific description of how compounds can be made to meet both constrain, what is the starting material and how was the size be sieved to meet the claim, enablement is lacking.

3. Claim 1 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim 1 contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

In the twice amended claim 1, on page 3, the scope wherein “Ar is an aryl group substituted with 0-5 noninterfering substituents, wherein two noninterfering substituents can form a fused ring” is NEW MATTER. Please note that on p. 7 of the specification, it was defined that “...when two of said optional substituents on adjacent positions can be joined.....3-8 members” (lines 29-31), thus, no support can be found to the instant scope that any noninterfering substituents can for any ring including bridged, para-fused, etc.

In the twice amended claim 1, p.3, wherein L1 and L2 is alkylene (1-4)C....wherein two substituents on L1 or L2 can be joined to form a non-aromatic saturated or unsaturated ring....” Is NEW MATTER. Please note that on p.6 it was defined that L1 or L2 can be alkylene, on p.5 it was defined that alkylene is $-(CH_2)_n-$, on page 3, the n was defined to be 0-3. No where can the definition of alkylene for L1 or L2 is (1-4)C... as in the claim. Further, on page 7, lines 8-11, it was defined that two substituents on L2 can be joined to form a nonaromatic.....etc., no antecedent basis can be found substituents on L1 or L2 can be joined.

In view of the complexity and the scope of the claims can not be ascertained. The claims are given the best interpretation either by structure requiring a piperazine-indole with L1, L2

being non interfering linker. Or the scope of the claims are given the size limitation wherein the distance between Ar and α -ring is 4.5-24 Å and the indolyl/benzimidazoly rings are substituted.

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP61-291566 in view of CRC handbook or WO 02/070491 in view of CRC Handbook (this rejection is based on size).

Determination of the scope and content of the prior art (MPEP §2141.01)

JP61-291566 generically disclosed compounds of the instant claims (see p.442, formula 4, Z is NR p.440 right column under formula (2)) and a species which is position isomer (Ar not linked to α -ring) has been exemplified (see p.453, compound 8-64).

Ascertainment of the difference between the prior art and the claims (MPEP §2141.02)

JP61-291566 disclosed all the elements of the claims **except** a species with Ar linked to the α -ring has not been exemplified. The substitution on the α -ring has been generically taught (see p.442 formula 4 and formula 3 Y5 being on the same ring or α -ring) and Ar with a linker having sufficient distance to the α -ring has also been explicitly disclosed (see p.441) and exemplified in analogous compounds (see p.449 Y5 being separated from Ar within the range of the claims, see CRC handbook p. 9-28 size of benzene and size of saturated six member heterocyclo p. 9-41 are within the range of 19.5 Å)

Finding of prima facie obviousness—rational and motivation (MPEP§2142-2143)

One having ordinary skill in the art would find the instant claims *prima facie* obvious **because** the instantly claimed compounds (based on size) have been generically disclosed with variation of species exemplified. One skilled in the art, guided by the explicit examples of the reference would expect all the compounds generically disclosed reasonably enabled and having similar activity as the exemplified compounds including those of the claims. In absence of unexpected result, there is nothing unexpected in choosing some among many. *In re Lemin* 141 USPQ 814. In addition, the instant claims are position isomers of the exemplified compound 8-64. On a fully aromatized ring system, all positions on the ring system are equivalent.

The same rational also applies to the WO 02/070491 reference. It is noted that WO 02/070491 is a 102(f) or (g) (provisional, with US national stage application) reference based on

the size limitation i.e. who is the first to conceive compounds wherein Ar to the center α -ring is 4.5-24 \AA , with the bicyclic core substituted with the particular substituents (see '491, p. 58-59).

Generically, Fuji et al. '491 disclosed the claimed material with Ar to the center α -ring having the size within the range of the claims that is the intermediate (see p.55-57) for making compound I-12 on page 54. Based on the size estimation from CRC handbook (see benzene p.9-28 and six membered heterocyclic ring p. page 9-41) the intermediate for making compound I-12, i.e. formula I-1 or I-13 of p.55, with X being benzyloxy would have the size within the 19.5 \AA allowed range as the piperazinyl ring. The difference between Fuji '491 and the instant claim is that the final product is disclosed without explicitly naming of its the intermediate. The intermediate is inherently made since the final product was obtained. Applicants attention is drawn to the *In re Baird* 29 USPQ2d 1550 analysis of the disclosure and the confusing as to what constitute the claimed size (see paragraph 3 supra).

5. Claims 1-6, 9, 11-12, 16-27, 22-37, 39, and 45-84 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the pending claims of SN 09/990,187 (national stage of WO 02/44292) or claims 1-7, 9, 11-36, 38-39, 42-44 WN 10/156,997, or the pending claims of SN 989,991 (national stage of WO 02/441168) in view of US 6,410,540.

Determination of the scope and content of the prior art (MPEP \S2141.01)

SN 09/990,187 or SN 09/989,991 (please note that although the base claim of '991 proviso out the monocyclic heterocyclic structure but claims 11 and 32 clearly included monoheterocyclic ring compounds) claimed position isomers of the instant claimed compounds i.e. the instant compounds having A moiety attached to the non- α -ring, B moiety to the α -ring, while the 09/990,187 claimed compounds having B moiety attached to the non- α -ring, A to the α -ring (compare especially the monoheterocyclic compounds of claim 38 SN 990/187, and claim 32 of SN 09/989,991 vs instant species claims).

Ascertainment of the difference between the prior art and the claims (MPEP \S2141.02)

The difference between the instant claims and the copending claims is that they are position isomers of each other. US 6,410,540 claims provided guidance that moving of the identical substituents of the instant application and SN '187 would be *prima facie* obvious (see claims 1-25) with evidence that they all have similar activity of p-38 kinase inhibition.

*Finding of *prima facie* obviousness—rational and motivation (MPEP\S2142-2143)*

The claims of the instant claims and the copending claims guided by the claims of the issued patent '540 would render the position isomerism *prima facie* obvious since position isomerism is well recognized in the art to be useful tool to obtain close structural drugs (*In re Mehta* 146 USPQ 284, *Ex parte Engelhardt* 208 USPQ 343, 349) and the issued patent provided evidence that such modification indeed is enabling and would be successful.

Claims 1-6, 9, 11-12, 16-27, 22-37, 39, and 45-84 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over the

pending claims of copending Application No. 09/316,761. Although the conflicting claims are not identical, they are not patentably distinct from each other because the instant claimed scope when Z3 is N is completely embrace by the claims of allowed SN 09/316,761. The generic claims of the three copending application although do not exclusively encompassing each other, the same compounds reading on the claims would be identical. There is no good reason why the same compound reading on claims of three copending claims need to be issued three times which would be unjustified extension of time of the "right to exclude".

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

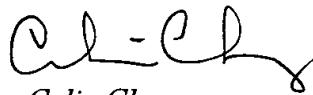
Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

6. References cited on PTO-892 have been provided to applicants in copending application SN 10/156,977, thus, applicants are urged to use copies in the copending case.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Celia Chang whose telephone number is 703-308-4702. The examiner can normally be reached on Monday through Thursday from 8:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner can be reached by facsimile at (703) 308-7922 with courtesy voice message supra.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-1235.


Celia Chang
Primary Examiner
Art Unit 1625

OACS/Chang
Aug. 21, 2003

Appeal conferee SPE 1625
Alan Rotman 